

CATERPILLAR®

EPA Region 5 Records Ctr.



353741

Caterpillar Inc.

100 NE Adams Street
Peoria, Illinois 61629-3315

July 5, 1990

Mr. Daniel Sullivan
Ecology and Environment, Inc.
111 West Jackson Blvd.
Chicago, IL 60604

Dear Mr. Sullivan:

Texaco Inc. Sales Terminal

Dear Mr. Sullivan:

Enclosed are the following documents you requested during the site evaluation of the former Texaco terminal on June 26, 1990.

- Test boring reports for monitoring wells MW-3 through MW-7 completed in 1987.
- A location drawing of MW-3 through MW-7.
- Groundwater monitoring well installation details for MW-3 through MW-7.
- Groundwater analyses from MW-3 through MW-7 for 1988, 1989 and 1990.

If you have any questions, please contact me.

Very truly yours,

Environmental Affairs
Technical Services

RRKilgo
Telephone: (309) 675-5547
sam \rrk\01861tr.tem.

Enc.

TEST BORING REPORT

BORING NO. MW-3

PROJECT: Groundwater Assessment

CLIENT: Caterpillar, Inc.

CONTRACTOR: PSI

EQUIPMENT USED: CME-55

JOB NO. F-1376

PAGE NO. 1 of 2

LOCATION: East Peoria, IL

ELEVATION:

DATE START: 3/24/87

DATE FINISH: 3/24/87

DRILLER: B. Williamson

PREPARED BY: P.W. Albenesius

GROUNDWATER		DEPTH TO:			CASING SAMPLER			CORE BARREL
DATE	HRS AFTER COMP	WATER	BOTTOM OF CASING	BOTTOM OF HOLE	TYPE	---	S	--
3/24	--	UR	--	--	SIZE D	---	1 7/8"	--
					HAMMER WT	---	140 lbs	X
					HAMMER FALL	---	30"	

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLER BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
					Note: Auger cuttings from 0-5': dark brown, dry, mostly fine sand, some silt, red brick frags, glass (fill).
5					
10					Note: Cuttings from 8-10': light brown, moist, mostly silt, little fine sand, no plasticity.
15		9		10.0	Poorly graded sand with gravel (SP)
		10		—	Brown, dry, mostly fine sand, some fine, subrounded to rounded gravel. (25% recovery)
		9	NR	12.0	
		10			
20					Note: Cuttings from 12-15'; brown, moist, mostly fine gravel subrounded to rounded, some fine sand.
		5		15.0	Well graded sand (SW)
		5	S1	16.0	Light brown, moist, mostly coarse sand, little fine sand,
		3		16.0	little fine gravel.
		3	S1A	17.0	Note: Strong hydrocarbon odor
		5			Poorly graded gravel with sand (GP)
		4		17.0	Dark gray to black, wet, mostly fine gravel, some fine sand,
		4		—	subrounded to rounded, very loose, strong hydrocarbon odor.
		3	S2	19.0	(50% recovery)

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTENCY	SAMPLE ID.	COMPONENT %	GROUNDWATER ABBREV.
0-4	VERY LOOSE	0-2	VERY SOFT	S SPLIT SPOON	MOSTLY 50-100 %	WD - WHILE DRILLING
5-10	LOOSE	3-4	SOFT	T TUBE	SOME 30-45 %	NE - NOT ENCOUNTERED
11-20	MEDIUM DENSE	5-8	MEDIUM STIFF	U UNDISTURBED PISTON	LITTLE 15-25 %	UR - NOT READ
21-30	DENSE	9-15	STIFF	G GRAB SAMPLE	FEW 5-10 %	
31-40	VERY DENSE	16-30	VERY STIFF	X OTHER	TRACE <5 %	
		31+	HARD	NR NO RECOVERY		

TEST BORING REPORT

BORING NO. MW-3

PAGE 2 OF 2

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLER BLOWS PER INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
25					Poorly graded gravel with sand (GP)
		7		21.5	No hydrocarbon odor.
		3	S3	22.5	
		2	S3A	22.5/23.0	Organic Silt (ML) Dark grey to black, moist, mostly silt, few fine sand, decaying organic matter, H ₂ S odor.
		2	S3B	23.0/23.5	
					Poorly graded sand (SP) Dark grey, wet, mostly fine sand, few fine rounded gravel,
		4		24.0	
		2	S4		Organic Silt (ML) See S3B Clayey silt (ML) Dark grey, moist, mostly silt, some clay, low to medium plasticity.
		4		25.5	
		10	S4A	26.5	Bottom of Exploration 28'
30		5			
		3	S5		
		3		28.5	

BLOWS/FT.	DENSITY	BLOWS/FT	CONSISTENCY	SAMPLE ID.	COMPONENT %	GROUNDWATER ABBREY.
0-4	VERY LOOSE	0-2	VERY SOFT	S SPLIT SPOON	MOSTLY 50-100%	WD-WHILE DRILLING
5-10	LOOSE	3-4	SOFT	T TUBE	SOME 30-45%	NE-NOT ENCOUNTERED
11-20	MEDIUM DENSE	5-8	MEDIUM STIFF	U UNDISTURBED PISTON	LITTLE 15-25%	UR-NOT READ
21-30	DENSE	9-15	STIFF	G GRAB SAMPLE	FEW 5-10%	
31-	VERY DENSE	16-30	VERY STIFF	X OTHER	TRACE <5%	
		31-	HARD	NR NO RECOVERY		BORING NO. MW-3

ENVIRONMENTAL TEST BORING REPORT

BORING NO. MW-4 / 8104

PROJECT: Groundwater Assessment
 CLIENT: Caterpillar, Inc.
 CONTRACTOR: Professional Service Industries, Inc.
 EQUIPMENT USED: CME-45 Truck

JOB NO. F-1376
 PAGE NO. 1 of 1
 LOCATION: See plan
 ELEVATION: Approx. 451
 DATE START: 3 December 1986
 DATE FINISH: 3 December 1986
 DRILLER: Keith Holm
 PREPARED BY J.S. Charness

GROUNDWATER		DEPTH TO:		CASING SAMPLER		CORE
DATE	HRS AFTER COMP	WATER	BOTTOM OF CASING	BOTTOM OF HOLE	TYPE	BARREL
			17.0 ft	17.0 ft	SIZE ID	3-1/4 in 1-3/8 in
					HAMMER WT	140 lb
					HAMMER FALL	30 in

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLER BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
5					
		1	S1	5.0	Peat (OL)
		1		6.5	Black, moist; mostly fibrous peat, trace fine and gravel.
		2			
		1	S2	6.5	
		2		8.0	
		1			NOTE: strong hydrocarbon odor --FILL--
		1	S3	8.0	9.0 ft.
		2		9.5	
		4			Well graded sand (SW) --FILL--
10		6	S4	9.5	Dark brown, wet, mostly fine to coarse sand, little silt, few fine gravel.
		4			
		2		11.0	
		1	S5	11.0	NOTE: hydrocarbon odor
		1		12.5	
		1		12.5	13.0 ft.
		1	S6		
		1		14.0	
15		1	S7	14.0	Silt (ML)
		1		15.5	Gray, wet, mostly silt, few to little clay, occasional fine sand layers, trace organics
		1		15.5	NOTE: No noticeable hydrocarbon odor
		1	S8		
		1		17.0	17.0 ft.
20					BOTTOM OF EXCAVATION 17.0 ft.
					NOTE:
					1) S3: Oil & grease: 2600 mg/kg; total hydrocarbon: 1800 mg/kg
					2) Installed permanent monitoring well, March 1987
					3) No noticeable hydrocarbon odor below 13.0 ft.

BLOWS/FT.	DENSITY	BLOWS/FT.	CONSISTENCY	SAMPLE ID.	COMPONENT %	GROUNDWATER ABBREV.
0-4	VERY LOOSE	0-2	VERY SOFT	S SPLIT SPOON	MOSTLY 50-100%	WD - WHILE DRILLING
5-10	LOOSE	3-4	SOFT	T TUBE	SOME 30-45%	NE - NOT ENCOUNTERED
11-30	MEDIUM DENSE	5-8	MEDIUM STIFF	U UNDISTURBED PISTON	LITTLE 15-25%	UR - NOT READ
31-50	DENSE	9-15	STIFF	G GRAB SAMPLE	FEW 5-10%	
51+	VERY DENSE	16-30	VERY STIFF	X OTHER	TRACE 5%	
		31+	HARD	NR NO RECOVERY		

BORING NO. MW-4

ENVIRONMENTAL CONSULTANTS

TEST BORING REPORT

BOILING NO. MW-5

PROJECT: Groundwater Assessment

CLIENT: Caterpillar, Inc.

CONTRACTOR: PSI

EQUIPMENT USED: CME-55

JOB NO. F-1376

PAGE NO. 1 of 1

LOCATION: East Peoria, IL


ELEVATION: Approx 452

DATE START: 3/20/87

DATE FINISH: 3/20/87

DRILLER: M. Henderson

PREPARED BY: P.W. Albenesis

GROUNDWATER		DEPTH TO:			CASING SAMPLER			CORE BARREL
DATE	HRS AFTER COMP	WATER	BOTTOM OF CASING	BOTTOM OF HOLE	TYPE	--	S	
3/20	WD	14' 0"	17' 0"	17' 0"	SIZE ID	--	1 7/8"	
3/20	1	14' 9"	15' 5"	15' 5"	HAMMER WT	--	140 lbs	
3/21	24	10' 0"	15' 5"	15' 5"	HAMMER FALL	--	30"	

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLER BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
					Note: Auger cuttings from 0-3.5' are tan, dry, fine sand with some shells. Probably fill.
5		8	S1	3.5	<u>Poorly Graded Sand with silt or clay (SP-SM)</u>
		3		--	Tan, dry, mostly fine sand, little to some shell frags, few silt or clay; cinders in tip of spoon.
		4		5.0	
					Note: Auger cuttings from 7-8.5, dark grey, moist to wet, mostly fine sand. Strong hydrocarbon odor. Wet cuttings at 8.5'.
		4		8.5	<u>Silty Clay (CL)</u>
10		2	S2	--	Dark grey, moist, mostly clay, few silt, highly plastic, strong hydrocarbon odor.
		2		10.0	
		2		10.0	<u>Silty Sand (SP-SM)</u>
		2	S3	--	Grey to black, wet, mostly silt, some fine sand grading to mostly fine sand, some silt. Trace roots and fibers throughout. Strong hydrocarbon odor throughout.
		1		11.5	
		2		11.5	
		1	S4	--	
		1		13.0	
		0		13.0	<u>Poorly graded sand (SP) and layers of silty clay (CL)</u>
15		0	S5	--	Gray, wet, mostly fine sand, trace silt with occasional layers of wet, mostly silty clay.
		1		14.5	
		Drop*		17.0	<u>Silt with sand (ML)</u>
		3	S6	--	Gray to black, moist, mostly silt, some to little fine sand, low plasticity.
		3		18.5	
					Bottom of Exploration 18.5 ft.
20					* Driller inadvertently dropped hammer through 6" of sample.

BLOWS/FT.	DENSITY	BLOWS/FT.	CONSISTENCY	SAMPLE ID.		COMPONENT %	GROUNDWATER ABBREV.
0-4	VERY LOOSE	0-2	VERY SOFT	S	SPLIT SPOON	MOSTLY 50-100 %	WD - WHILE DRILLING NE - NOT ENCOUNTERED UR - NOT READ
5-10	LOOSE	3-4	SOFT	T	TUBE	SOME 30-45 %	
11-20	MEDIUM DENSE	5-8	MEDIUM STIFF	U	UNDISTURBED PISTON	LITTLE 15-25 %	
21-30	DENSE	9-15	STIFF	G	GRAB SAMPLE	FEW 5-10 %	BORING NO. MW-5
31-50	VERY DENSE	16-30	VERY STIFF	X	OTHER	TRACE 45 %	
51+		31+	HARD	NR	NO RECOVERY		

RRINE **IRONMENTAL** **NSULTANTS** **TEST BORING REPORT**

BORING NO. MW-6

PROJECT: Groundwater Assessment

CLIENT: Caterpillar Inc.

CONTRACTOR: PSI

EQUIPMENT USED: CME-45

JOB NO. F-1376

PAGE NO. 1 of 1

LOCATION: East Peoria, IL

ELEVATION: Approx. 452

DATE START: 3/21/87

DATE FINISH: 3/22/87

DRILLER: M. Henderson

PREPARED BY: P.W. Albenesius

GROUNDWATER		DEPTH TO:		CASING		SAMPLER	CORE
DATE	HRS AFTER COMP	WATER	BOTTOM OF CASING	BOTTOM OF HOLE	TYPE	--	BARREL
3/21	WD	15'	20'	20'	SIZE ID	--	1 7/8" --
					HAMMER WT	--	140 lbs
					HAMMER FALL	--	30"

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLER BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
5					Note: Cuttings from 0-4': Brown, dry, mostly fine sand, some rounded gravel (fine), little shells. 4'-5' cutting same as above but moist and lighter brown.
10		3	S1	5.0	Poorly graded sand with gravel (SP) Light brown, drv, mostly fine sand, few medium sand, few coarse gravel (30 mm) sand is rounded; cinders in tip of spoon.
		4		--	
		3		6.5	
					Note: Cuttings wet at 7.5': gr y to black, mostly fine sand, some silt, few fine gravel.
		4	S2	8.5	Silty clay (CL) Gray moist, mostly clay, some silt, little rubble and fine sand.
		4		10.0	
		2			Clayey silt (ML) Gray wet, mostly silt, some to little clay, loose, medium plasticity. 1" seam of fine sand at 11.0'. Disturbed sample, very wet and fragmented: gray wet, mostly silt, little fine sand, faintly laminated, very loose.
		1	S3	10.0	
		0		11.5	
15		0	S4	11.5	
		1		13.0	
		1	S5	13.0	Silt (ML) Gray wet, mostly silt, fine clay, faintly laminated, pasty, H ₂ S odor; fine sand in tip of spoon.
		1		14.5	
		2	S6	14.5	Poorly graded sand (SP) Gray wet, mostly fine sand (6" thick).
		3		16.0	
		3			Note: Auger dropped 6" from its own weight from 14.5-15.0' Note: 6" layer silt with fine sand at 16.0 ft. to 16.5 ft.
		0	S7	16.0	
		1		17.0	
20		2	S7A	17.0	
		0		18.0	
		1		18.0	(Driller hammered last spoon for his own purposes) Clayey Silt (ML) Gray to black, moist, mostly silt, little clay, little wood chips and root fibers (trace of peat.)
		1		19.0	
					BOTTOM OF EXPLORATION AT 19.0 ft.

BLOWS/FT.	DENSITY	BLOWS/FT.	CONSISTENCY	SAMPLE ID.		COMPONENT %	GROUNDWATER ABBREV.
0-4	VERY LOOSE	0-2	VERY SOFT	S	SPLIT SPOON	MOSTLY 50-100 %	WD - WHILE DRILLING
5-10	LOOSE	3-4	SOFT	T	TUBE	SOME 30-45 %	NE - NOT ENCOUNTERED
11-20	MEDIUM DENSE	5-8	MEDIUM STIFF	U	UNDISTURBED PISTON	LITTLE 15-25 %	UR - NOT READ
21-30	DENSE	9-15	STIFF	G	GRAB SAMPLE	FEW 5-10 %	
31-50	VERY DENSE	16-30	VERY STIFF	X	OTHER	TRACE 45 %	
51+		31+	HARD	NR	NO RECOVERY		BORING NO. MW-6

BORING NO. MW-6

ENVIRONMENTAL TEST BORING REPORT

BORING NO. MW-7

PROJECT: Groundwater Assessment
 CLIENT: Caterpillar, Inc.
 CONTRACTOR: PSI
 EQUIPMENT USED: CME-45

JOB NO. F-1376
 PAGE NO. 1 of 2
 LOCATION: East Peoria, IL
 ELEVATION: _____
 DATE START: 3/20/87
 DATE FINISH: 3/
 DRILLER: M. Henderson
 PREPARED BY: P.W. Albenesius

GROUNDWATER		DEPTH TO:			CASING SAMPLER			CORE BARREL
DATE	HRS AFTER COMP	WATER	BOTTOM OF CASING	BOTTOM OF HOLE	TYPE	--	S	--
3/20	WD	19.0"	20.0'	20.0'	SIZE D	--	7/8"	--
3/20	2	20.4"	23.0'	23.0'	HAMMER WT	---	140 lbs	<input checked="" type="checkbox"/>
3/24	9.6	7.0"	20.0'	20.0'	HAMMER FALL	---	30"	<input checked="" type="checkbox"/>

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLER BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
5					
		6		3.5	Poorly graded gravel with sand (GP)
		4	S1	5.0	Brown to black, moist, mostly fine gravel, some coarse to fine sand, little clay, few glass, rubble. Gravel subrounded to angular.
10		2			
		1		8.5	
		1	S2	10.0	Clayey silt (ML) Gray, moist to wet, mostly silt, some clay, laminations (gray and tan). Material loosens with depth
15					
		0		13.5	
		1	S3	15.0	Clayey silt (ML) Gray, wet, mostly silt, some clay, medium plasticity, sticky. 2" layer of fine sand with few silt or clay at 14.0'.
20		1			
				18.5	
			S4	20.0	Silty Clay (CL) Gray, wet, mostly clay, some silt, medium plasticity, H ₂ S 3" layer of poorly graded fine sand, little silt or clay at 19.0'

BLOWS/FT.	DENSITY	BLOWS/FT.	CONSISTENCY	SAMPLE ID.	COMPONENT %	GROUNDWATER ABBREV.
0-4	VERY LOOSE	0-2	VERY SOFT	S SPLIT SPOON	MOSTLY 50-100 %	WD - WHILE DRILLING
5-10	LOOSE	3-4	SOFT	T TUBE	SOME 30-45 %	NE - NOT ENCOUNTERED
11-30	MEDIUM DENSE	5-8	MEDIUM STIFF	U UNDISTURBED PISTON	LITTLE 15-25 %	UR - NOT READ
31-50	DENSE	9-15	STIFF	G GRAB SAMPLE	FEW 5-10 %	
51+	VERY DENSE	16-30	VERY STIFF	X OTHER	TRACE <5 %	
		31+	HARD	NR NO RECOVERY		BORING NO. MW-7

BOFING NO. MM-7

GROUNDWATER MONITORING INSTALLATION DETAIL

PROJECT: <u>Groundwater Assessment</u>	JOB NO. <u>F-1376</u>
LOCATION: <u>Caterpillar, Inc. East Peoria, IL</u>	INSTALLATION NO. <u>MW-3</u>
CLIENT: <u>Caterpillar, Inc.</u>	TYPE OF INSTALLATION <u>Permanent</u>
CONTRACTOR: <u>Professional Service Industries</u>	<u>Monitoring Well</u>
DRILLER: <u>B. Williamson</u> CERTIFICATION NO: _____	BORING NO. <u>MW-3</u>
CRSS FIELD REPRESENTATIVE: <u>P. W. Albenisius</u>	LOCATION <u>See Plan</u>
P.E.: <u>Gordon Peterson, P.E.</u>	INSTALLATION DATE <u>3/24/87</u>

SURVEY DATUM <u>MSL</u>		TOP OF PROTECTIVE CASING (CAP OPEN) EL. _____ STICKUP <u>3.0 ft.</u>	
GROUND SURFACE ELEVATION: <u>Approx. 452 ft.</u>		TOP OF WELL CASING OR RISER PIPE EL. _____ STICKUP <u>2.5 ft.</u>	
SUMMARIZE SOIL CONDITIONS, BACKFILL AND SEALS (NOT TO SCALE)	Fill: mostly silty sand	TYPE OF SURFACE SEAL <u>neat cement</u> THICKNESS OF SURFACE SEAL <u>2.0 ft.</u>	
	Concrete	TYPE OF PROTECTIVE CASING <u>steel</u> INSIDE DIAMETER <u>4.0 in.</u> TOTAL LENGTH <u>5.0 ft.</u>	
		BOTTOM OF PROTECTIVE CASING EL. _____ DEPTH <u>2.0 ft.</u>	
		TYPE OF WELL CASING OR RISER PIPE <u>Sch. 40 PVC</u> INSIDE DIAMETER <u>2.0 in.</u>	
	5.0	Neat cement	APPROXIMATE DIAMETER OF BOREHOLE <u>10 in.</u>
	Interbedded fine to coarse sand, silty sand, and gravel	Bentonite	TOP OF WELL POINT EL. _____ DEPTH <u>10.0 ft.</u>
		8.0	TYPE OF WELL POINT <u>Machine slotted Triloc PVC</u> SCREEN GAUGE OR SIZE OF OPENINGS <u>0.010 in.</u> INSIDE DIAMETER <u>2.0 in.</u> TYPE OF BACKFILL AROUND POINT <u>Fine sand</u>
	23.5	Fine silica sand	BOTTOM OF WELL POINT EL. _____ DEPTH <u>25.0 ft.</u>
	silt with interbedded sand.		BOTTOM OF BOREHOLE EL. _____ DEPTH <u>26.0 ft.</u>

FIGURES ABOVE REFER TO DEPTH IN FEET

ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

$$\begin{array}{rcl}
 \frac{12.5 \text{ ft.}}{\text{LENGTH OF RISER PIPE}} & + & \frac{15.0 \text{ ft.}}{\text{LENGTH OF POINT}} = \frac{27.5 \text{ ft.}}{\text{TOTAL}}
 \end{array}$$

BENTONITE SEALS



GROUNDWATER MONITORING INSTALLATION DETAIL

PROJECT: <u>Groundwater Assessment</u>	JOB NO. <u>F-1376</u>
LOCATION: <u>Caterpillar, Inc., East Peioria, IL</u>	INSTALLATION NO. <u>MW-4</u>
CLIENT: <u>Caterpillar, Inc.</u>	TYPE OF INSTALLATION <u>Permanent</u>
CONTRACTOR: <u>Professional Service Industries</u>	<u>Monitoring Well</u>
DRILLER: <u>M. Henderson</u> CERTIFICATION NO: <u>-----</u>	BORING NO. <u>B-104</u>
CRSS FIELD REPRESENTATIVE: <u>P. W. Albenisius</u>	LOCATION <u>See Plan</u>
P.E.: <u>Gordon Peterson, P.E.</u>	INSTALLATION DATE <u>3/21/87</u>

SURVEY DATUM <u>MSL</u>		TOP OF PROTECTIVE CASING (CAP OPEN) EL. <u> </u> STICKUP <u>3.0 ft.</u>
GROUND SURFACE ELEVATION: <u>Approx. 452 ft.</u>		TOP OF WELL CASING OR RISER PIPE EL. <u> </u> STICKUP <u>2.5 ft.</u>
SUMMARIZE SOIL CONDITIONS, BACKFILL AND SEALS (NOT TO SCALE)	Neat Cement	TYPE OF SURFACE SEAL <u>neat cement</u>
		THICKNESS OF SURFACE SEAL <u>1.5 ft.</u>
	Bentonite	TYPE OF PROTECTIVE CASING <u>steel</u>
		INSIDE DIAMETER <u>6.0 in.</u>
	Mostly peat with gravel	TOTAL LENGTH <u>5.0 ft.</u>
		BOTTOM OF PROTECTIVE CASING EL. <u> </u> DEPTH <u>2.0 ft.</u>
	Fine silica sand	TYPE OF WELL CASING OR RISER PIPE <u>Sch. 40 PVC</u>
		INSIDE DIAMETER <u>2.0 in.</u>
	well graded sand	APPROXIMATE DIAMETER OF BOREHOLE <u>10 in.</u>
		TOP OF WELL POINT EL. <u> </u> DEPTH <u>5.5 ft.</u>
silt	TYPE OF WELL POINT <u>Machine slotted Triloc PVC</u>	
	SCREEN GAUGE OR SIZE OF OPENINGS <u>0.010 in.</u>	
TYPE OF BACKFILL AROUND POINT <u>Fine sand</u>		
BOTTOM OF WELL POINT EL. <u> </u> DEPTH <u>15.5 ft.</u>		
BOTTOM OF BOREHOLE EL. <u> </u> DEPTH <u>16.5 ft.</u>		

• FIGURES ABOVE REFER TO DEPTH IN FEET

• ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

<u>8.0 ft.</u>	+	<u>10.0 ft.</u>	=	<u>18.0 ft.</u>
LENGTH OF RISER PIPE		LENGTH OF POINT		TOTAL

BENTONITE SEALS



GROUNDWATER MONITORING INSTALLATION DETAIL

PROJECT: <u>Groundwater Assessment</u>	JOB NO. <u>F-1376</u>
LOCATION: <u>Caterpillar, Inc., East Peoria, IL</u>	INSTALLATION NO. <u>MW-5</u>
CLIENT: <u>Caterpillar, Inc.</u>	TYPE OF INSTALLATION <u>Permanent</u>
CONTRACTOR: <u>Professional Service Industries</u>	<u>Monitoring Well</u>
DRILLER: <u>M. Henderson</u> CERTIFICATION NO: <u>-----</u>	BORING NO. <u>MW-5</u>
CRSS FIELD REPRESENTATIVE: <u>P. W. Albenisius</u>	LOCATION <u>See Plan</u>
P.E.: <u>Gordon Peterson, P.E.</u>	INSTALLATION DATE <u>3/29/87</u>

SURVEY DATUM <u>MSL</u>		TOP OF PROTECTIVE CASING (CAP OPEN) EL <u>-----</u> STICKUP <u>3.0 ft.</u>
GROUND SURFACE ELEVATION: <u>Approx. 452 ft.</u>		TOP OF WELL CASING OR RISER PIPE EL <u>-----</u> STICKUP <u>2.5 ft.</u>
SUMMARIZE SOIL CONDITIONS, BACKFILL AND SEALS (NOT TO SCALE)	Poorly graded sand with some inter-bedded silt.	TYPE OF SURFACE SEAL <u>neat cement</u>
		THICKNESS OF SURFACE SEAL <u>1.5 ft.</u>
	Neat cement	TYPE OF PROTECTIVE CASING <u>steel</u>
		INSIDE DIAMETER <u>6.0 in.</u>
	Bentonite	TOTAL LENGTH <u>5.0 ft.</u>
		BOTTOM OF PROTECTIVE CASING EL <u>-----</u> DEPTH <u>2.0 ft.</u>
	8.5	TYPE OF WELL CASING OR RISER PIPE <u>Sch. 40 PVC</u>
		INSIDE DIAMETER <u>2.0 in.</u>
	Interbedded silty clay, sand, and silty sand	APPROXIMATE DIAMETER OF BOREHOLE <u>10 in.</u>
		TOP OF WELLPOINT EL <u>-----</u> DEPTH <u>5.5 ft.</u>
Fine silica sand	TYPE OF WELLPOINT <u>Machine slotted Triloc PVC</u>	
	SCREEN GAUGE OR SIZE OF OPENINGS <u>0.010 in.</u>	
		INSIDE DIAMETER <u>2.0 in.</u>
		TYPE OF BACKFILL AROUND POINT <u>Fine sand</u>
		BOTTOM OF WELL POINT EL <u>-----</u> DEPTH <u>15.5 ft.</u>
		BOTTOM OF BOREHOLE EL <u>-----</u> DEPTH <u>16.5 ft.</u>

• FIGURES ABOVE REFER TO DEPTH IN FEET

• ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

$$\begin{array}{rcl}
 \frac{8.0 \text{ ft.}}{\text{LENGTH OF RISER PIPE}} & + & \frac{10.0 \text{ ft.}}{\text{LENGTH OF POINT}} = \frac{18.0 \text{ ft.}}{\text{TOTAL}}
 \end{array}$$

BENTONITE SEALS 

GROUNDWATER MONITORING INSTALLATION DETAIL

PROJECT: <u>Groundwater Assessment</u>	JOB NO. <u>F-1376</u>
LOCATION: <u>Caterpillar, Inc., East Peoria, IL</u>	INSTALLATION NO. <u>MW-6</u>
CLIENT: <u>Caterpillar, Inc.</u>	TYPE OF INSTALLATION <u>Permanent</u>
CONTRACTOR: <u>Professional Service Industries</u>	<u>Monitoring Well</u>
DRILLER: <u>B. Williamson</u> CERTIFICATION NO: <u>-----</u>	BORING NO. <u>MW-6</u>
CRSS FIELD REPRESENTATIVE: <u>P. W. Albenisius</u>	LOCATION <u>See Plan</u>
P.E.: <u>Gordon Peterson, P.E.</u>	INSTALLATION DATE <u>3/22/87</u>

SURVEY DATUM <u>MSL</u>		TOP OF PROTECTIVE CASING (CAP OPEN) EL. <u>STICKUP</u> <u>3.0 ft.</u>
GROUND SURFACE ELEVATION: <u>Approx. 452 ft.</u>		TOP OF WELL CASING OR RISER PIPE EL. <u>STICKUP</u> <u>2.5 ft.</u>
SUMMARIZE SOIL CONDITIONS, BACKFILL AND SEALS (NOT TO SCALE)	Poorly graded fine sand	TYPE OF SURFACE SEAL <u>neat cement</u>
		THICKNESS OF SURFACE SEAL <u>1.0 ft.</u>
	Neat cement	TYPE OF PROTECTIVE CASING <u>steel</u>
		INSIDE DIAMETER <u>6.0 in.</u>
	Bentonite	TOTAL LENGTH <u>5.0 ft.</u>
		BOTTOM OF PROTECTIVE CASING EL. <u> </u> DEPTH <u>2.0 ft.</u>
	8.5	TYPE OF WELL CASING OR RISER PIPE <u>Sch. 40 PVC</u>
		INSIDE DIAMETER <u>2.0 in.</u>
	Interbedded silty clay and fine sand.	APPROXIMATE DIAMETER OF BOREHOLE <u>10 in.</u>
		TOP OF WELLPOINT EL. <u> </u> DEPTH <u>4.5 ft.</u>
Fine silica sand	TYPE OF WELLPOINT <u>Machine slotted Triloc PVC</u>	
	SCREEN GAUGE OR SIZE OF OPENINGS <u>0.010 in.</u>	
	INSIDE DIAMETER <u>2.0 in.</u>	
	TYPE OF BACKFILL AROUND POINT <u>Fine sand</u>	
	BOTTOM OF WELL POINT EL. <u> </u> DEPTH <u>19.5 ft.</u>	
	BOTTOM OF BOREHOLE EL. <u> </u> DEPTH <u>21.0 ft.</u>	

• FIGURES ABOVE REFER TO DEPTH IN FEET
• ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

$$\frac{7.0 \text{ ft.}}{\text{LENGTH OF RISER PIPE}} + \frac{15.0 \text{ ft.}}{\text{LENGTH OF POINT}} = \frac{22.0 \text{ ft.}}{\text{TOTAL}}$$

BENTONITE SEALS 

GROUNDWATER MONITORING INSTALLATION DETAIL

PROJECT: <u>Groundwater Assessment</u>	JOB NO. <u>F-1376</u>
LOCATION: <u>Caterpillar, Inc., East Peoria, IL</u>	INSTALLATION NO. <u>MW-7</u>
CLIENT: <u>Caterpillar, Inc.</u>	TYPE OF INSTALLATION <u>Permanent</u>
CONTRACTOR: <u>Professional Service industries.</u>	<u>Monitoring Well</u>
DRILLER: <u>B. Williamson</u> CERTIFICATION NO: <u>-----</u>	BORING NO. <u>MW-7</u>
CRSS FIELD REPRESENTATIVE: <u>P. W. Albenisius</u>	LOCATION <u>See Plan</u>
P.E.: <u>Gordon Peterson, P.E.</u>	INSTALLATION DATE <u>3/23/87</u>

SURVEY DATUM <u>MSL</u>		TOP OF PROTECTIVE CASING (CAP OPEN) EL. <u>-----</u> STICKUP <u>3.0 ft.</u>
GROUND SURFACE ELEVATION: <u>Approx. 452 ft.</u>		TOP OF WELL CASING OR RISER PIPE EL. <u>-----</u> STICKUP <u>2.5 ft.</u>
SUMMARIZE SOIL CONDITIONS, BACKFILL AND SEALS (NOT TO SCALE)	Neat Cement	TYPE OF SURFACE SEAL <u>Neat Cement</u> THICKNESS OF SURFACE SEAL <u>1.0 ft.</u>
	Mostly fill: gravel with sand plus miscellaneous rubble and glass.	TYPE OF PROTECTIVE CASING <u>steel</u> INSIDE DIAMETER <u>6.0 in.</u> TOTAL LENGTH <u>5.0 ft.</u>
		BOTTOM OF PROTECTIVE CASING EL. <u>-----</u> DEPTH <u>2.0 ft.</u>
	Bentonite	TYPE OF WELL CASING OR RISER PIPE <u>Sch. 40 PVC</u> INSIDE DIAMETER <u>2.0 in.</u>
	8.5	APPROXIMATE DIAMETER OF BOREHOLE <u>10 in.</u>
		TOP OF WELLPOINT EL. <u>-----</u> DEPTH <u>5.0 ft.</u>
		TYPE OF WELLPOINT <u>Machine slotted Triloc PVC</u> SCREEN GAUGE OR SIZE OF OPENINGS <u>0.010 in.</u> INSIDE DIAMETER <u>2.0 in.</u> TYPE OF BACKFILL AROUND POINT <u>Fine sand</u>
	Silty clay and clayey silt	BOTTOM OF WELL POINT EL. <u>-----</u> DEPTH <u>20.0 ft.</u>
	Fine silica sand	BOTTOM OF BOREHOLE EL. <u>-----</u> DEPTH <u>22.0 ft.</u>

• FIGURES ABOVE REFER TO DEPTH IN FEET

• ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

$$\frac{7.5 \text{ ft.}}{\text{LENGTH OF RISER PIPE}} + \frac{15.0 \text{ ft.}}{\text{LENGTH OF POINT}} = \frac{22.5 \text{ ft.}}{\text{TOTAL}}$$

BENTONITE SEALS 

MW3

DATE	CHROM TOT mg/l	LEAD TOT mg/l	OIL mg/l	PH	COND umho	BENZ ug/l	ETHY BENZ ug/l	TOL ug/l	XYL ug/l
1988									
1-20	<.01	<.01	3	7.4	1200	<5	<5	<5	<15
2-16	.02	<.01	2	7.14	1180				
3-15			2	7.23	1200				
4-19	<.01	<.01	<1	7.19	1380	<5		<5	<15
5-17	<.01	<.005	<1	7.28	1190				
6-15	<.01	<.01	<1	6.94	1280				
7-15	<.01	<.01	<1	6.77	1370	<5		<5	<15
8-19	<.01	<.01	<1		1470				
9-8	<.01	<.01	<1	7.19	1290				
12-14	<.01	<.01	4	7.07	1350				
1989									
1-17	<.01	0.01	<1	6.97	1410	<5	<5	<5	<15
2-16	<.01	<.01	2	6.82	1250				
3-17	<.01	<.005	6	7.12	1240				
4-18	<.01	<.005	2	7.05	1160	<5	<5	<5	<15
5-16	<.01	.007	2	7.24	1020				
6-16	<.01	<.005	3	7.03	1040				
8-15	<.01	<.01	<1	6.94	1450	<5		<5	<15
9-28	<.01	<.005	1	7.01	1420				
10-23	<.01	<.005	2	6.97	1480	<5	<5	<5	<15
11-13	<.01	<.005	<1	7.04	1400				
12-13	<.01	<.005	1						
1990									
1-16	<.01	<.005	3	7.01	1390	<5	<5	<5	<15
2-15	<.01	<.005	<1	7.01	1250				
3-16	<.01	<.005	2	6.8	910				
4-16	<.01	<.005	<1	7.02	970	<5	<5	<5	<15
5-18	<.01	<.005	2	7.08	1030				

MW4

DATE	CHROM TOT mg/l	LEAD TOT mg/l	OIL mg/l	PH	COND umho	BENZ ug/l	ETHY BENZ ug/l	TOL ug/l	XYL ug/l
1988									
1-20	<.01	<.01	3	7	1450	<5	<5	<5	<15
2-16	<.01	<.01	<1	6.84	1530				
3-15			1	6.93	1800				
4-19	<.01	<.01	<1	6.94	1500	<5		<5	<15
5-17	<.01	<.005	<12	6.97	1400				
6-15	<.01	<.01	<1	6.73	1410				
7-15	<.01	<.01	<1	6.43	1400	<5		<5	<15
8-19	<.01	<.01	<1		1510				
9-8	<.01	<.01	<1	6.98	1360				
12-14	<.01	<.01	4	6.8	1450				
1989									
1-17	<.01	0.01	<1	6.72	1570	<5	<5	<5	<15
2-16	<.01	<.01	<2	6.56	1380				
3-17	<.01	<.005	5	6.98	1380				
4-18	<.01	<.005	2	6.88	1300	<5	<5	<5	<15
5-16	<.01	.008	2	7.04	1110				
6-16	<.01	<.005	2	6.88	1120				
3-15	<.01	<.01	1	9.77	1610	<5		<5	<15
9-28	<.01	<.005	2	6.80	1580				
10-23	<.01	<.005	2	6.75	1570	<5	<5	<5	<15
11-13	<.01	<.005	<1	6.83	1540				
12-13	<.01	<.005	<1						
1990									
1-16	<.01	<.005	2	6.90	1350	<5	<5	<5	<15
2-15	<.01	<.005	<1	6.85	1400				
3-16	<.01	.02	2	6.61	1170				
4-16	<.01	<.005	<1	6.70	940	<5	<5	<5	<15
5-18	<.01	<.005	3	6.85	940				

MW5

DATE	CHROM TOT mg/l	LEAD TOT mg/l	OIL mg/l	PH	COND umho	BENZ ug/l	ETHY BENZ ug/l	TOL ug/l	XYL ug/l
1388									
1-20	<.01	<.01	5	7.01	870	<5	<5	<5	<15
2-16	<.01	<.01	<1	6.87	750				
3-15			<1	6.85	980				
4-19	<.01	<.01	<1	7.11	680	<5		<5	<15
5-17	<.01	<.005	3	7.08	800				
6-15	<.01	<.01	3	6.74	900				
7-15	<.01	<.01	1	6.54	1070	<5		<5	<15
8-19	<.01	<.01	<1		1260				
9-8	<.01	.01	<1	6.99	1180				
12-14	<.01	<.01	4	6.88	1240				
1389									
1-17	<.01	0.01	1	6.77	1280	<5	<5	<5	<15
2-16	<.01	<.01	2	6.72	1080				
3-17	<.01	<.005	2	7.2	1220				
4-18	<.01	<.005	3	6.88	1030	<5	<5	<5	<15
5-16	<.01	<.005	2	6.99	760				
6-16	<.01	<.005	<1	6.69	730				
8-15	<.01	<.01	2	6.77	1190	<5		<5	<15
9-28	<.01	<.005	3	6.81	830				
10-23	<.01	<.005	3	6.73	860	<5	<5	<5	<15
11-13	<.01	<.005	<1	6.76	960				
12-13	<.01	<.005	1						
1990									
1-16	<.01	<.005	3	6.95	1120	<5	<5	<5	<15
2-15	<.01	<.005	<1	6.87	1180				
3-16	<.01	.006	<1	6.69	790				
4-16	<.01	<.005	<1	6.78	520	<5	<5	<5	<15
5-18	<.01	<.005	4	7.11	520				

MW6

DATE	CHROM TOT mg/l	LEAD TOT mg/l	OIL mg/l	PH	COND umho	BENZ ug/l	ETHY BENZ ug/l	TOL ug/l	XYL ug/l
1988									
1-20	<.01	<.01	3	7.70	1140	<5	<5	<5	<15
2-16	<.01	<.01	<1	7.80	1120				
3-15			<1	7.74	1200				
4-19	<.01	<.01	1	7.52	1140	<5		<5	<15
5-17	<.01	<.005	<2	7.62	1100				
6-15	<.01	<.01	<1	7.37	1020				
7-15	<.01	<.01	1	7.19	1060	<5		<5	<15
8-19	<.01	<.01	<1		1170				
9-8	<.01	<.01	<1	7.41	1090				
12-14	<.01	.01	3	7.44	1100				
1989									
1-17	<.01	0.01	2	7.43	1140	<5	<5	<5	<15
2-16	<.01	<.01	2	7.26	1120				
3-17	<.01	<.005	<2	7.72	1170				
4-18	<.01	<.005	3	7.49	1100	<5	<5	<5	<15
5-16	<.01	<.005	2	7.63	1000				
6-16	<.01	<.005	2	7.36	990				
8-15	<.01	<.01	2	7.28	1150	<5		<5	<15
9-28	<.01	<.005	2	7.46	1220				
10-23	<.01	<.005	2	7.48	1160	<5	<5	<5	<15
11-12	<.01	<.005	<1	7.42	1080				
12-13	<.01	<.005	1						
1990									
1-16	<.01	<.005	1	7.48	1060	<5	<5	<5	<15
2-15	<.01	<.005	<1	7.28	1030				
3-16	<.01	<.005	1	7.13	1060				
4-16	<.01	<.005	2	7.12	880	<5	<5	<5	<15
5-18	<.01	<.005	2	7.37	890				

MW7

DATE	CHROM TOT mg/1	LEAD TOT mg/1	OIL mg/1	PH	COND umho	BENZ ug/1	ETHY BENZ ug/1	TOL ug/1	XYL ug/1
1988									
1-20	<.01	<.01	2	6.98	1990	<5	<5	<5	<15
2-16	<.01	<.01	1	7.06	2080				
3-15			1	7.06	1900				
4-19	<.01	<.01	1	7.1	1930	<5		<5	<15
5-17	<.01	<.005	3	7.18	1860				
6-15	<.01	<.01	<1	7.03	1830				
7-15	<.01	<.01	<1	6.87	1800	<5		<5	<15
8-19	<.01	<.01	<1		1870				
9-8	<.01	<.01	<1	7.01	1830				
12-14	.01	<.01	3	6.92	1770				
1989									
1-17	<.01	0.01	<1	6.93	1940	<5	<5	<5	<15
2-16	<.01	<.01	2	6.83	1600				
3-17	<.01	<.005	2	7.16	1610				
4-18	<.01	<.005	2	6.95	1350	<5	<5	<5	<15
5-16	<.01	<.005	1	7.13	1210				
6-16	<.01	<.005	2	6.97	1190				
8-15	<.01	<.01	1	6.86	1870	<5		<5	<15
9-28	<.01	<.005	<1	6.99	1840				
10-23	<.01	<.005	<1	6.94	1750	<5	<5	<5	<15
11-13	<.01	<.005	<1	6.93	1770				
12-13	<.01	<.005	1						
1990									
1-16	<.01	<.005	<1	6.88	1620	<5	<5	<5	<15
2-15	<.01	<.005	<1	6.86	1490				
3-16	<.01	<.005	<1	6.83	1480				
4-16	<.01	<.005	<1	6.78	850	<5	<5	<5	<15
5-18	<.01	<.005	<1	6.97	900				

White Copy -
Ill. Dept. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE
DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST
JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER
SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug ☐ Bored ☐ Hole Diam. in. Depth ft.
Curb material Buried Slab: Yes ☐ No ☐
b. Driven ☐ Drive Pipe Diam. in. Depth ft.
c. Drilled ☒ Finished in Drift ☒ In Rock ☐
Tubular ☒ Gravel Packed ☐
d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
DRILL CUTTINGS	0	20

2. Distance to Nearest:

Building 22 Ft. Seepage Tile Field ☐
Cess Pool ☐ Sewer (non Cast iron) ☐
Privy ☐ Sewer (Cast iron) ☐
Septic Tank 85 Barnyard ☐
Leaching Pit ☐ Manure Pile ☐

3. Well furnishes water for human consumption? Yes ☒ No ☐

4. Date well completed 8/11/86

5. Permanent Pump Installed? Yes ☒ Date 8/11/86 No ☐

Manufacturer RED JACKET Type SUB Location WELL

Capacity 5 gpm. Depth of Setting 45 Ft.

6. Well Top Sealed? Yes ☒ No ☐ Type

7. Pitless Adapter Installed? Yes ☒ No ☐

Manufacturer BAKER Model Number 5P545BWK

How attached to casing? SCREWED ON

8. Well Disinfected? Yes ☒ No ☐

9. Pump and Equipment Disinfected? Yes ☒ No ☐

10. Pressure Tank Size DIAPHRAGM

Location BASEMENT

11. Water Sample Submitted? Yes ☐ No ☒

REMARKS:

Co # 21587

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Well No. 3
Address EAST PERRY DR. NW
Driller WILLIAM M. EBERT License No. 100-354
11. Permit No. 123668 Date 1986
12. Water from DIRTY S-L-G 13. County TAZEWELL
at depth 45 to 53 ft. Sec. 34
14. Screen: Diam. 4 in. Twp. 26N
Length: 3 ft. Slot 12 Rge. 4W
Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
<u>4</u>	<u>BLK ST. 11#</u>	<u>0</u>	<u>48</u>

SHOW
LOCATION IN
SECTION PLAT

150' NL 150' WL
NE

16. Size Hole below casing: in.

17. Static level 36 ft. below casing top which is 1 ft.
above ground level. Pumping level ft. when pumping at 8 MAX
gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
<u>YELLOW SANDY CLAY</u>	<u>31</u>	<u>31</u>
<u>GRAY CLAY TR SAND</u>	<u>14</u>	<u>45</u>
<u>YELLOW CLAY, STG. WATER DRIVEN</u>	<u>8</u>	<u>53</u>
<u>DARK GRAY TO BLACK SHALE</u>	<u>16</u>	<u>69</u>
<u>DARK GRAY SHALE</u>	<u>19</u>	<u>87</u>

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED W. M. Ebert DATE 8/31/86

White Copy -
Ill. De - Public Health
Yellow C - Well Contractor
Blue Copy - Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION RE-ESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 6... STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1/67

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug ☐ Bored ☐ Hole Diam. ☐ in. Depth ☐ ft.
Curb material ☐ Burled Slab: Yes ☐ No ☐
- b. Driven ☐ Drive Pipe Diam. ☐ in. Depth ☐ ft.
- c. Drilled ☒ Finished in Drift ☒ In Rock ☐
Tubular ☒ Gravel Packed ☐
- d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
DRILL CUTTINGS	0	20

2. Distance to Nearest:

Building 240 Ft. Seepage Tile Field ☐

Cess Pool ☐ Sewer (non Cast iron) ☐

Privy ☐ Sewer (Cast iron) ☐

Septic Tank ☐ Barnyard ☐

Leaching Pit ☐ Manure Pile ☐

3. Is water from this well to be used for human consumption?

Yes ☒ No ☐

4. Date well completed 11-24-67

5. Permanent Pump Installed? Yes ☐ No ☒

Manufacturer ☐ Type ☐

Capacity ☐ gpm. Depth of setting ☐ ft.

6. Well Top Sealed? Yes ☒ No ☐

7. Pitless Adaptor Installed? Yes ☐ No ☒

8. Well Disinfected? Yes ☒ No ☐

9. Water Sample Submitted? Yes ☐ No ☒

REMARKS:

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10. Dept. Mines and Minerals permit No. NF 3011 Year 1967
11. Property owner ☐ Well No. ☐
Address ☐
Driller NEFFER & ILL License No. 19
12. Water from SAND & GRAVEL 13. County TAZEWELL
at depth 120 to 127 ft. Sec. 22 Id. ☐
14. Screen: Diam. 4 in. Twp. 26N ☐
Length: 3 ft. Slot 20 Rng. 4W ☐
Elev. ☐

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
<u>4</u>	<u>BLK ST #11/1</u>	<u>0</u>	<u>124</u>

SHOW
LOCATION IN
SECTION PLAT

110'S. 150'S.
of NE/2 SE

16. Size Hole below casing: ☐ in.

17. Static level 29 ft. below casing top which is 1 ft.
above ground level. Pumping level ☐ ft. when pumping at ☐
gpm for ☐ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
<u>YELLOW CLAY</u>	<u>16</u>	<u>16</u>
<u>FINE SAND & CLAY</u>	<u>34</u>	<u>50</u>
<u>GRAY CLAY TR S & M</u>	<u>45</u>	<u>95</u>
<u>GREEN CLAY</u>	<u>10</u>	<u>105</u>
<u>GRAY CLAY TR S & M</u>	<u>15</u>	<u>120</u>
<u>SAND & GRAVEL</u>	<u>7</u>	<u>127</u>
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED W. M. Elert DATE 12-21-67

White Copy -
Ill. Dept. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1/67

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug . Bored . Hole Diam. 4 in. Depth 70 ft.
Curb material . Buried Slab: Yes No
- b. Driven . Drive Pipe Diam. in. Depth ft.
- c. Drilled ✓. Finished in Drift ✓. In Rock .
Tubular ✓. Gravel Packed .
- d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:

Building _____ Ft. Seepage Tile Field _____
Cess Pool _____ Sewer (non Cast iron) _____
Privy _____ Sewer (Cast iron) _____
Septic Tank _____ Barnyard _____
Leaching Pit _____ Manure Pile _____

3. Is water from this well to be used for human consumption?

Yes _____ **No** _____

4. Date well completed 1960

5. Permanent Pump Installed? Yes _____ No _____

Manufacturer _____ Type _____

Capacity _____ gpm. Depth of setting _____ ft.

6. Well Top Sealed? Yes _____ No _____

7. Pitless Adaptor Installed? Yes ✓ No

8. Well Disinfected? Yes _____ No _____

9. Water Sample Submitted? Yes _____ No _____

REMARKS:

Bowling Alley

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10. Dept. Mines and Minerals permit No. _____ Year _____
 11. Property owner _____ Well No. _____
 Address _____ E. Pearson
 Driller Wm. E. Best License No. _____
 12. Water from sand 13. County Forewell

Formation _____

at depth 50 to 70 ft.

14. Screen: Diam. _____ in.

Length: 3 ft. Slot 20

Sec. 22.2b

Twp. 26N

Rng. 4W

Elev. _____

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
4	steel pipe	0	67

**SHOW
LOCATION IN
SECTION PLAT**

16. Size Hole below casing: _____ in.
17. Static level 0 ft. below casing top which is well flows ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

18.	FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
	sand @ 50'		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Jpg DATE 7-23-68

White Copy -
Ill. Dept of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

FILL IN ALL PERTINENT INFORMATION REQUES. J AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

a. Dug . Bored . Hole Diam. 4 in. Depth 20' ft.
Curb material . Buried Slab: Yes No

b. Driven . Drive Pipe Diam. in. Depth ft.

c. Drilled ✓. Finished in Drift ✓. In Rock .
Tubular ✓. Gravel Packed .

d. Grout:

(KIND)	FROM (Pt.)	TO (Pt.)

Building _____ Ft. Seepage Tile Field _____
Cess Pool _____ Sewer (non Cast iron) _____
Privy _____ Sewer (Cast iron) _____
Septic Tank _____ Barnyard _____
Leaching Pit _____ Manure Pile _____

Yes ☐ No ☒

4. Date well completed 1959

Manufacturer _____ Type _____
Capacity _____ gpm. Depth of setting _____ f

Pitless Adaptor Installed? Yes _____ No Well seal.

Water Sample Submitted? Yes No

19

10. Dept. Mines and Minerals permit No. _____ Year _____
 11. Property owner Wm Ebert Phone No. _____
 Address 417 Pearl St.
 Driller Wm Ebert License No. _____
 12. Water from STC 13. County Tazewell
Formation
 at depth _____ to _____ ft.
 14. Screen: Diam. 4 in.
 Length: 3 ft. Slot 21'
 Sec. 27.3c
 Twp. 26N
 Rng. 4W
 Elev. _____

		$\frac{7}{8}$	

SHOW
LOCATION IN
SECTION PLAT

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
4/8	steel	0	197

17. Static level 181 ft. below casing top which is 0 ft. above ground level. Pumping level — ft. when pumping at — gpm for — hours.

18.	FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
	To shale.		
	(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED Harvey Ketter DATE 8/6/68

White Copy
Ill. Dept. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION RECORDED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1/67

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug ☐ Bored ☐ Hole Diam. in. Depth ft.
Curb material Buried Slab: Yes ☐ No ☐
b. Driven ☐ Drive Pipe Diam. in. Depth ft.
c. Drilled ☒ Finished in Drift ☒ In Rock ☐
Tubular ☒ Gravel Packed Depth 23 ft.
d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:

Building 200 Ft. Seepage Tile Field
Cess Pool Sewer (non Cast iron)
Privy Sewer (Cast iron)
Septic Tank 350 Barnyard
Leaching Pit Manure Pile

3. Is water from this well to be used for human consumption?

Yes ☒ No ☐

4. Date well completed July 7, 1967

5. Permanent Pump Installed? Yes ☒ No ☐
Manufacturer Red Jacket Type Sub. S150N1-9CB
Capacity 25 gpm. Depth of setting 18 ft.

6. Well Top Sealed? Yes ☐ No ☐

7. Pitless Adaptor Installed? Yes ☒ No ☐

8. Well Disinfected? Yes ☒ No ☐

9. Water Sample Submitted? Yes ☐ No ☒

REMARKS:

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10. Dept. Mines and Minerals permit No. NF 2454 Year 1967
11. Property owner Dixon Fisheries Well No.
Address 1807 North Main St., East Peoria, Ill.
Driller Chris Ebert Co. License No. 92-499
12. Water from Sand & gravel 13. County Tazewell
at depth 19 to 23 ft. Sec. 27.59
14. Screen: Diam. 3 3/4 in. Twp. 26N
Length: 4 ft. Slot 35 Rng. 4W
Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
<u>4</u>	<u>Standard Black</u>	<u>4</u>	<u>19</u>

SHOW
LOCATION IN
SECTION PLAT
100°N, 110°W
SE/c NW NE

16. Size Hole below casing: in.

17. Static level 4 ft. below casing top which is one ft.
above ground level. Pumping level 8 ft. when pumping at 60
gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Sandy brown dirt	<u>6</u>	<u>6</u>
Sandy yellow clay	<u>6</u>	<u>12</u>
Brown sand & gravel-some clay-very hard	<u>3</u>	<u>15</u>
Brown water sand	<u>3</u>	<u>18</u>
Medium to coarse brown sand & fine gravel	<u>5</u>	<u>23</u>
Medium gray water sand-some pebbles down to 26 ft.		
and gray shale at 26 ft.		
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED Robert H. Ebert DATE Feb 12, 1969
m.

Harvey Petty DATE 7/18/68

White Copy -
Ill. De. - Public Health
Yellow C. - Well Contractor
Blue Copy - Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 610, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1/67

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug ☐ Bored ☐ Hole Diam. in. Depth ft.
Curb material Buried Slab: Yes ☐ No ☐
- b. Driven ☐ Drive Pipe Diam. in. Depth ft.
- c. Drilled ☒ Finished in Drift ☒ In Rock ☐
Tubular ☒ Gravel Packed ☐
- d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:

Building 5 Ft. Seepage Tile Field ☐
Cess Pool ☐ Sewer (non Cast iron) ☐
Privy ☐ Sewer (Cast iron) ☐
Septic Tank 60 Barnyard ☐
Leaching Pit ☐ Manure Pile ☐

3. Is water from this well to be used for human consumption?

Yes ☒ No ☐

4. Date well completed April 21, 1967

5. Permanent Pump Installed? Yes ☒ No ☐

Manufacturer Red Jacket Type Sub
Capacity 8 gpm. Depth of setting 177 ft.

6. Well Top Sealed? Yes ☒ No ☐

7. Pitless Adaptor Installed? Yes ☒ No ☐

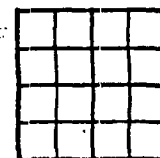
8. Well Disinfected? Yes ☒ No ☐

9. Water Sample Submitted? Yes ☐ No ☒

REMARKS:

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10. Dept. Mines and ~~Geological~~ permit No. NF 1704 Year 1966
11. Property owner Well No. 1
Address East Peoria
Driller Lox & Co. License No. 92-499
12. Water from Sand Formation 13. County Tazewell
at depth 145 to 176 ft. Sec. 27
14. Screen: Diam. 3 3/4 in. Twp. 24N
Length: 3 ft. Slot 16 Rng. 4W
Elev.



15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
<u>4</u>	<u>standard Black</u>	<u>4'</u>	<u>173</u>

SHOW
LOCATION IN
SECTION PLAT

16. Size Hole below casing: in.
17. Static level 146 ft. below casing top which is 1 ft.
above ground level. Pumping level 149 ft. when pumping at 12
gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
<u>Fill</u>	<u>9</u>	<u>9</u>
<u>Yellow clay</u>	<u>23</u>	<u>32</u>
<u>Blue clay</u>	<u>29</u>	<u>61</u>
<u>Very sandy clay some water</u>	<u>7</u>	<u>68</u>
<u>Blue clay</u>	<u>26</u>	<u>94</u>
<u>Dry yellow fine sand</u>	<u>23</u>	<u>117</u>
<u>Dry yellow sand + gravel</u>	<u>28</u>	<u>145</u>
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED Robert N. Ebert DATE June 28, 1967
Fine to medium water sand 26-171
Fine to coarse water sand 5-176
some gravel

White Copy -
Ill. Dept. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

FILL IN ALL PERTINENT INFORMATION REQUES. J AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1/67

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

- ### 1. Type of Well

a. Dug . Bored . Hole Diam. 4 in. Depth 221 ft.
Curb material . Buried Slab Yes No

b. Driven . Drive Pipe Diam. in. Depth ft.

c. Drilled ✓. Finished in Drift ✓. In Rock .
Tubular ✓. Gravel Packed .

d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

- 2. Distance to Nearest:**

Building _____ Ft. Seepage Tile Field _____
Cess Pool _____ Sewer (non Cast iron) _____
Privy _____ Sewer (Cast iron) _____
Septic Tank _____ Barnyard _____
Leaching Pit _____ Manure Pile _____

3. Is water from this well to be used for human consumption?
Yes ☒ No ☐

4. Date well completed 1939
5. Permanent Pump Installed? Yes _____ No _____
- Manufacturer _____ Type _____
- Capacity _____ gpm. Depth of setting _____ ft

6. Well Top Sealed? Yes _____ No _____
7. Pitless Adaptor Installed? Yes ☒ No _____
8. Well Disinfected? Yes _____ No _____
9. Water Sample Submitted? Yes _____ No _____

REMARKS:

no water level given.

10. Dept. Mines and Minerals permit No. _____ Year _____
 11. Property owner _____ Well No. _____
 Address _____ East Ploria, Ill.
 Driller Wm Chert License No. _____
 12. Water from S + Gravel Formation
 at depth _____ to _____ ft.
 13. County Tazewell
 Sec. 27.2F
 Twp. 26N
 Rng. 4W
 Elev. _____
 14. Screen: Diam. 4 in.
 Length: 3 ft. Slot 20

SHOW
LOCATION IN
SECTION PLAT

- ## 15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Steel	0	218

16. Size Hole below casing: _____ in.
17. Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

18.	FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
(CONTINUE ON SEPARATE SHEET IF NECESSARY)			

SIGNED

SIGNED Harvey Petty DATE 8/6/68

White Copy -
Ill. Dept. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

1/67

SIGNED Harvey Petty DATE 8/13/68

White Copy -
Ill. Dept. of P. & Health
Yellow Copy -- Well Contractor
Blue Copy -- Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTS. SEND AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1/67

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
- a. Dug . Bored . Hole Diam. 4 in. Depth 200 ft.
Curb material . Buried Slab: Yes No
- b. Driven ~~SA~~. Drive Pipe Diam. in. Depth ft.
- c. Drilled ✓. Finished in Drift ✓. In Rock .
Tubular ✓. Gravel Packed .
- d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
- | | |
|--------------------|-----------------------------|
| Building _____ Ft. | Seepage Tile Field _____ |
| Cess Pool _____ | Sewer (non Cast iron) _____ |
| Privy _____ | Sewer (Cast iron) _____ |
| Septic Tank _____ | Barnyard _____ |
| Leaching Pit _____ | Manure Pile _____ |
3. Is water from this well to be used for human consumption?
Yes _____ No ☒ _____
4. Date well completed 1959
5. Permanent Pump Installed? Yes _____ No _____
Manufacturer _____ Type _____
Capacity _____ gpm. Depth of setting _____ ft.
6. Well Top Sealed? Yes _____ No _____
7. Pitless Adaptor Installed? Yes _____ No Well seal.
8. Well Disinfected? Yes _____ No _____
9. Water Sample Submitted? Yes _____ No _____

REMARKS:

19'

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10. Dept. Mines and Minerals permit No. _____ Year _____
 11. Property owner _____ Well No. _____
 Address _____
 Driller Wm Eibert License No. _____
 12. Water from STB Formation East Union, Ill.
 at depth _____ to _____ ft.
 13. County Tazewell
 Sec. 27.3c2
 14. Screen: Diam. 4 in. Twp. 26N
 Length: 3 ft. Slot 20 Rng. 4W
 Elev. _____

		78

SHOW
LOCATION IN
SECTION PLAT

- ## 15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
4/8	steel	0	197

16. Size Hole below casing: _____ in.
17. Static level 181 ft. below casing top which is 0 ft.
above ground level. Pumping level _____ ft. when pumping at _____
gpm for _____ hours.

18.	FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
	To shale.		
(CONTINUE ON SEPARATE SHEET IF NECESSARY)			

SIGNED Harvey Peltz DATE 8/6/68

White Copy -
Ill. Dep. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 816, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1/67

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

a. Dug _____, Bored _____, Hole Diam. 4 in. Depth 244 ft.
Curb material _____, Buried Slab: Yes _____ No _____

b. Driven _____, Drive Pipe Diam. _____ in. Depth _____ ft.

c. Drilled ☒, Finished in Drift ☒, In Rock _____
Tubular ☒, Gravel Packed _____

d. Grout: _____

(KIND)	FROM (Ft.)	TO (Ft.)

Building _____ Ft. Seepage Tile Field _____
Cess Pool _____ Sewer (non Cast iron) _____
Privy _____ Sewer (Cast iron) _____
Septic Tank _____ Barnyard _____
Leaching Pit _____ Manure Pile _____

4. Date well completed 1962

6. Well Top Sealed? Yes _____ No _____

7. Pitless Adaptor Installed? Yes ☒ No ☐

8. Well Disinfected? Yes _____ No _____

9. Water Sample Submitted? Yes _____ No _____

REMARKS:

59

10. Dept. Mines and Minerals permit No. _____ Year _____
11. Property owner _____ Well No. _____
Address _____ East Paris, Ill.
Driller Wm Elbert License No. _____
12. Water from _____ Formation _____ 13. County Tazewell
at depth _____ to _____ ft.
14. Screen: Diam. 4 in.
Length: 3 ft. Slot 20
- Sec. 272e
Twp. 26N
Rng. 4W
Elev. _____
- | | | | | | |
|--|--|--|--|--|---|
| | | | | | |
| | | | | | |
| | | | | | X |
| | | | | | |
| | | | | | |
| | | | | | |

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	5 steel	0	241

SHOW
LOCATION IN
SECTION PLAT

16. Size Hole below casing: in.
17. Static level 125 ft. below casing top which is 0 ft.
above ground level. Pumping level ft. when pumping at
gpm for hours.

18.	FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
	Not		
	(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED

SIGNED Harvey Pethy DATE 7/23/68

DATE _____

White Copy -
Ill. Dept. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL /WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1/67

ILLINOIS DEPARTMENT OF PUBLIC HEALTH 37½
WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug _____ . Bored _____ . Hole Diam. 4 in. Depth 228 ft.
Curb material _____ . Buried Slab: Yes _____ No _____
- b. Driven _____ . Drive Pipe Diam. _____ in. Depth _____ ft.
- c. Drilled / . Finished in Drift / . In Rock _____ .
Tubular / . Gravel Packed _____ .
- d. Grout: _____

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:

Building _____ Ft. Seepage Tile Field _____
Cess Pool _____ Sewer (non Cast iron) _____
Privy _____ Sewer (Cast iron) _____
Septic Tank _____ Barnyard _____
Leaching Pit _____ Manure Pile _____

3. Is water from this well to be used for human consumption?

Yes _____ No _____

4. Date well completed 1962

5. Permanent Pump Installed? Yes _____ No _____
 Manufacturer _____ Type _____
 Capacity _____ gpm. Depth of setting _____ ft.

6. Well Top Sealed? Yes ✓ No

7. Pitless Adaptor Installed? Yes _____ No ✓

8. Well Disinfected? Yes _____ No _____

9. Water Sample Submitted? Yes _____ No _____

REMARKS:

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10. Dept. Mines and Minerals permit No. _____ Year _____
 11. Property owner Wm E. Bert Well No. _____
 Address _____ E. Beria
 Driller Wm E. Bert License No. _____
 12. Water from _____ Formation _____
 at depth _____ to 228 ft. Sec. 27.2e
 14. Screen: Diam. 4 in. Twp. 26N
 Length: 3 ft. Slot 20 Rng. 7W

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	steel pipe	0	225

**SHOW
LOCATION IN
SECTION PLAT**

16. Size Hole below casing: _____ in.
17. Static level 190 ft. below casing top which is @ ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

18.	FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
	<i>not to shale</i>		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED

DATE _____

7-23-68

White Copy -
Ill. Dep. of Public Health
Yellow Copy - Well Contractor
Blue Copy - Well Owner

INSTRUCTIONS TO FILERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE
DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST
JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER
SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug ☐ Bored ☐ Hole Diam. in. Depth ft.
Curb material Buried Slab: Yes ☐ No ☐
b. Driven ☐ Drive Pipe Diam. in. Depth ft.
c. Drilled ☒ Finished in Drift ☒ In Rock ☐
Tubular ☒ Gravel Packed ☐

d. Grout:

(KIND)	FROM (FT.)	TO (FT.)
DRILL CUTTINGS	0	20

2. Distance to Nearest:

Building 22 Ft. Seepage Tile Field ☐
Cess Pool ☐ Sewer (non Cast Iron) ☐
Privy ☐ Sewer (Cast Iron) ☐
Septic Tank 85 Barnyard ☐
Leaching Pit ☐ Manure Pile ☐

3. Well furnishes water for human consumption? Yes ☒ No ☐

4. Date well completed 8/11/76

5. Permanent Pump Installed? Yes ☒ Date 8/11/76

Manufacturer RED JACKET Type SUB Location WELL

Capacity 5 gpm. Depth of Setting 45 Ft.

6. Well Top Sealed? Yes ☒ No ☐ Type

7. Pitless Adapter Installed? Yes ☒ No ☐

Manufacturer BAKER Model Number 4PS450W

How attached to casing? SCREWED ON

8. Well Disinfected? Yes ☒ No ☐

9. Pump and Equipment Disinfected? Yes ☒ No ☐

10. Pressure Tank Size DIAPHRAGM

Location BASEMENT

11. Water Sample Submitted? Yes ☐ No ☒

REMARKS:

Co # 21587

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner R Well No. 2
Address ASTORIA, IL
Driller WILLIAM MERTZ License No. 107-359
11. Permit No. 53668 Date 1986
12. Water from DIRECT S.G. 13. County TAZEWELL
at depth 45 to 53 ft. Sec. 34
14. Screen: Diam. 4 in. Twp. 26N
Length: 3 ft. Slot 12 Rge. 4W
Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (FT.)	To (FT.)
<u>4</u>	<u>BLK ST. 11#</u>	<u>0</u>	<u>48</u>

SHOW
LOCATION IN
SECTION PLAT
150' NL 150' WL
NE

16. Size Hole below casing: in.

17. Static level 36 ft. below casing top which is 1 ft.
above ground level. Pumping level ft. when pumping at 8 LPM
gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
<u>YELLOW SANDY CLAY</u>	<u>31</u>	<u>31</u>
<u>GRAY CLAY TR. SAND</u>	<u>14</u>	<u>45</u>
<u>YELLOW CLAY, S.G. WATER DRIVEN</u>	<u>8</u>	<u>53</u>
<u>DARK GRAY TO BLACK SHALE</u>	<u>16</u>	<u>69</u>
<u>DARK GRAY SHALE</u>	<u>19</u>	<u>87</u>

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

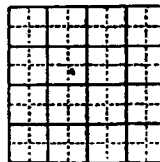
SIGNED W. M. Elbert DATE 8/30/76

ILLINOIS GEOLOGICAL SURVEY, URBANA

TEST HOLE	Thickness	Top	Bottom
Asphalt		0	4"
Gravel		4"	1
Brown clay		1	12
Brown clayey silt with sand seams		12	18
Gray very silty clay, occasional sand seam		18	50
Sticky gray silty clay, sand seams		50	73
Fine sand to coarse gravel and boulders. Mud Loss: 3" Mud Weight: 9.5		73	88
Gravel and boulders with sand inter-mixed		88	91
Gray shale		91	96
			TD
Set 2" pipe to 90' with bottom 20' slotted pumped with contractors pump 4 hours at approximately 50 gpm			
Static water level: 9'			
Size Mud Pit: Length 6', Width 4'			
Split-spoon sample at 77-78.5'			
S.S.# 60291			
NO ENVELOPE			

COMPANY Layne-Western Co.
 FARM East Peoria
 DATE DRILLED January 20, 1976
 AUTHORITY Company
 ELEVATION
 LOCATION Ap. 2100'N line, 2100'W line of NW
 COUNTY TAZEWELL

NO. 3-76
 COUNTY NO. 21068

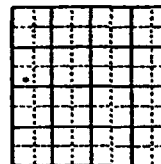


32-26N-4W

ILLINOIS GEOLOGICAL SURVEY, URBANA

Permit #46702	Thickness	Top	Bottom
Miscellaneous fill		0	1
Brown very sandy clay		1	6
Brown medium sand to coarse gravel (loose), trace fine sand, some boulders		6	44
Gray shale		44	46
Total depth			46
Casing: 29' of 12" .330" steel with welded joints +2' - 27'			
Screen: 17' of 12" diameter, .120" stainless steel, with welded joints 27' - 44'			
Hole record: 48" 0' - 10' 38" 10' - 46'			
Well test data: Static level 19', pumping level 23' after 5½ hours pumping at 412 gpm. Length of test: 8½ hours.			
S.S. #60629			
Test hole data: Set 2" pipe to 45' with bottom 25' slotted pumped with contractor's pump. Pumping about 50 gpm for 4 hours. Static water level: 15' Size mud pit: Length 5', Width 4'			
S.S. #60293 NO ENVELOPE			

COMPANY Layne-Western Co., Inc. 1-76
 FARM East Peoria NO. 9
 DATE DRILLED January 15, 1976 COUNTY NO. 21066
 AUTHORITY Company
 ELEVATION
 LOCATION 300' S line, 400' W line, NW
 COUNTY TAZEWELL



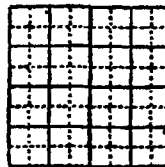
33-26N-4W

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Fill	4		4
Black loam	5		9
Bluegray clay	4		13
Blue clay	21		34
Sand and fine gravel (dirty)	4		38
Blue clay	22		60
Blue clay and fine sand	7		67
Fine sand (dirty)	2		69
Gray clay and small amounts sand	7½		77½
Sand and gravel			86
black iron pipe			TD
Casing: 4" from 0 to 80'.			
Static water level 11 feet.			
Tested capacity 12 gal. per min. Length of test 3hrs. 30min.			
Summary Sample Study by G.H. Emrich	6/56		
PLEISTOCENE SERIES			
No sample	4		4
Till or soil, brown, leached	5		9
Till, yellowish gray, oxidized, calcareous.	4		13
Till, silty, gray, calcareous.	21		34
Gravel, silty, calcareous.	4		38
Till, silty, gray to buff, calcareous	29		67
Sand and till, gray, calcareous.	2		69
Till, sandy, gray to buff, calcareous.	8		77
Gravel and till, calcareous.	2		79
Gravel, calcareous, clean.	4		83
Gravel and sand, silty, calcareous; shale at bottom (Pennsylvanian)	3		86
S.S. # 26485			

COMPANY M. Ebert
 FARM Caterpillar Tractor Co. NO. 2
 DATE DRILLED 1956 COUNTY NO. 37
 AUTHORITY W. M. Ebert
 ELEVATION 441' Est. TM
 LOCATION 100' W & 1065' N of Sec.
 COUNTY Tazewell



31-26N-4W

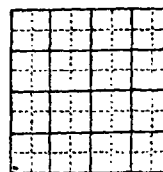
ILLINOIS GEOLOGICAL SURVEY, URBANA

TEST HOLE	Thickness	Top	Bottom
Miscellaneous fill		0	5
Brown silty clay		5	9
Brown silty sandy clay		9	23
Sand and gravel		23	25
Gray silty sandy clay		25	28
Fine sand to coarse gravel loose, Mud Loss:12", Mud Weight: 9.5		28	34
Blue gray clay		34	48
Blue gray shale		48	60
			TD
Size Mud Pit: Length:6', Width4'			
S.S.# 60290			
NO ENVELOPE			

COMPANY Layne-Western Co.
FARM East Peoria
DATE DRILLED January 21, 1976
AUTHORITY Company
ELEVATION
LOCATION Ap. 50'S line, 90'W line of SW
COUNTY TAZEWELL

NO. 4-76

COUNTY NO. 21069



33-26N-4W

INSTRUCTIONS TO DRILLERS

White Copy - State Health
 Ill. Dept. of Public Health
 Yellow Copy - Well Contractor
 Blue Copy - Well Owner

FILL IN ALL PERTINENT INFORMATION RE/ STED AND MAIL ORIGINAL TO STATE DE-
 PARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD,
 ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO
 PROVIDE PROPER WELL LOCATION.

1/67

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well

- a. Dug ☐ Bored ☐ Hole Diam. in. Depth ft.
 Curb material Buried Slab: Yes ☐ No ☐
 b. Driven ☐ Drive Pipe Diam. in. Depth ft.
 c. Drilled ☒ Finished in Drift ☒ In Rock ☐
 Tubular ☒ Gravel Packed ☐ Depth 23 ft.
 d. Grout:

(KIND)	FROM (FT.)	TO (FT.)

2. Distance to Nearest:

Building 200 Ft. Seepage Tile Field
 Cess Pool Sewer (non Cast iron)
 Privy Sewer (Cast iron)
 Septic Tank 350 Barnyard
 Leaching Pit Manure Pile

3. Is water from this well to be used for human consumption?

Yes ☒ No ☐4. Date well completed July 7, 1967

5. Permanent Pump Installed? Yes ☒ No ☐
 Manufacturer Red Jacket Type Sub S150N1-9CB
 Capacity 25 gpm. Depth of setting 18 ft.

6. Well Top Sealed? Yes ☐ No ☐7. Pitless Adaptor Installed? Yes ☒ No ☐8. Well Disinfected? Yes ☒ No ☐9. Water Sample Submitted? Yes ☐ No ☒

REMARKS:

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10. Dept. Mines and Minerals permit No. NF 2454 Year 1967
 11. Property owner Dixon Fisheries Well No. 1
 Address 807 North Main St., East Peoria, Ill.
 Driller Chris Ebert Co. License No. 92-489
 12. Water from Sand & gravel 13. County Tazewell
 at depth 19 to 23 ft. Sec. 27 59
 14. Screen: Diam. 3 3/4 in. Twp. 26N
 Length: 4 ft. Slot 35 Rng. 4W
 Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Standard Black	4	19

SHOW
 LOCATION IN
 SECTION PLAT
100°N, 110°W
SE/c NW N.

16. Size Hole below casing: - - - in.

17. Static level 4 ft. below casing top which is one ft.
 above ground level. Pumping level 8 ft. when pumping at 60
 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Sandy brown dirt	6	6
Sandy yellow clay	6	12
Brown sand & gravel-some clay-very hard	3	15
Brown water sand	3	18
Medium to coarse brown sand & fine gravel	5	23
Medium gray water sand-some pebbles down to 26 ft.		
and gray shale at 26 ft.		
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED Robert H. Ebert DATE Feb 12, 1969
71.

WELL LOG 6

Town East Peoria Township Fondulac
 Company John Bolliger & Sons No.
 Farm T. P. & W. R.R. No.
 Authority Driller's log
 Elevation
 Collector K. O. Emery
 Confidential Date Drilled

Map No. 3
 R. 4W

T.					Sec.
26				3	31
N			1		

No.	Strata	Thickness		Depth	
		Feet	In.	Feet	In.
	234				
	Well #3				
	Elev. 439				
	1500' N. line, 700' E. line				
	Soil and clay, brown	4		4	
	Clay, brown	4		8	
	Clay, blue	22		30	
	Sand and gravel	10		40	
	Clay, blue	1		41	
	Sand and gravel, fine	3		44	
	Shale, soft				
	COUNTY NO. 235				
	Well #4				
	Elev. 439				
	2700' N. line, 1600' E. line				
	Soil and clay, brown	4		4	
	Clay, brown	4		8	
	Clay, blue	19		27	
	Gravel, coarse	12		39	
	Sand, coarse	5		44	
	Shale				
	NO ENVELOPE				
	STRIP FILED				

COUNTY Tazewell
 DRILL RECORD

INDEX NO. 0331

31-26N-4W

(1228-2820)

ILLINOIS GEOLOGICAL SURVEY, URBANA

(12-41)



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

EPA Region 5 Records Ctr.



353742

M E M O R A N D U M

DATE: January 9, 1990
TO: Corporate Staff
FROM: Michael D'Auben MD
SUBJECT: Petroleum Products

This memo is a brief summary of the composition of petroleum products, including gasoline, kerosene, diesel fuel, heating oil and tar. All of these products are complex mixtures of hundreds of hydrocarbons. Only a small number of these are members of the TCL list.

Gasoline is composed of almost 100% volatiles, and about 50% of these are aromatics such as benzene. In addition to these volatiles, there are traces (< 1%) of semivolatiles such as PAHs. Kerosene has less volatiles, about 80%, and only about 14% of these are aromatics. Of the remaining fraction, there are about 6% PAHs. Diesel fuel (No. 2 fuel oil) has only about 50% volatiles and only about 4% of these are aromatics. Diesel fuel does have a much larger percentage of PAHs, over 30%. Finally, tar is almost all semivolatiles, mainly PAHs, with only small amounts of aromatics (< 5%). In composition, heating oil falls somewhere between diesel fuel and tar.

There are two analyses commonly used to test for petroleum products, oil and grease (O & G) and total hydrocarbons (TPH). For the O & G analysis, the sample is extracted with a solvent such as Freon or hexane. The solvent is then either evaporated to dryness and the residue weighed (gravimetric analysis) or measured in an infrared spectrometer (spectroscopic analysis). Because the solvent is evaporated, the first method is unsuitable for samples containing gasoline, kerosene or diesel fuel

since most of these will be lost to volatilization. The second method is somewhat better for these light products, although losses of 50% or more for gasoline can be expected. The TPH analysis is similar to the spectrographic O & G analysis, but the extract is treated to remove non-petroleum (naturally occurring) oils which show up in the oil & grease analysis. The detection limits for all of these methods can reach 1 ppm if the analyst is competent.

SOME COMMON PETROLEUM PRODUCTS

(in order of increasing density and decreasing volatility)

Gasoline

Kerosene/jet fuel

Diesel fuel

Heating oil

Motor oil

Tar

SOME COMMON PETROLEUM COMPONENTS

Volatiles

ethylbenzene

benzene

styrene

toluene

xylene

Semivolatiles

acenaphthalene

naphthalene

2-methylphenol

4-methylphenol

anthracene

phenanthrene

fluorene

phenol

REFERENCES

Kawahara, F. K., Characterization and Identification of Spilled Residual Fuel Oil by Gas Chromatography and Infrared Spectroscopy, U.S. EPA, 1971.

Coleman, W. E., et. al., "The Identification and Measurement of Components in Gasoline, Kerosene, and No. 2 Fuel Oil that Partition in the Aqueous Phase After Mixing", Archives of Environmental Toxicology, 1984.

Environmental Monitoring & Support Laboratory, Methods for Chemical Analysis of Water and Waste, U.S. EPA, 1983.

Hawley, G. G., The Condensed Chemical Dictionary, Van Nostrand Reinhold Co., 1981.

4300:1